

Claims

1. A compact disc carrying a session including a table of contents (TOC) and a program area (PA) containing at least one track (T1), the table of contents indicating a track start position (ATOC); characterised in that:
 - 5 a. a data portion (ED) is located at said indicated track start position (ATOC) and is arranged to cause a first compact disc reader which uses the indicated track start position (ATOC) to determine the location of said track (T1) to fail to read the track (T1);
 - 10 b. the track (T1) is located at an actual start position (AP) different from said indicated start position (ATOC); and
 - c. the session further includes an index (VI) arranged to be used by a second compact disc reader to determine the actual start position (AP) and to enable the second compact disc player to read the track (T1).
- 15 2. A compact disc according to claim 1, wherein the index is a video CD index (VI) and said second compact disc reader is a video CD compatible compact disc reader.
- 20 3. A compact disc according to claim 1 or claim 2, wherein the index is located at a predetermined position within the session, such that it is recognised by the second compact disc reader.
- 25 4. A compact disc according to any preceding claim, wherein the program area includes one or more subchannels (P; IDX) arranged to cause a third compact disc reader to read the track (T1) and to ignore the data portion (ED).
5. A compact disc according to claim 4, wherein the one or more subchannels (P; IDX) are arranged to cause the third compact disc reader to ignore the index (VI).

6. A compact disc according to claim 4 or claim 5, wherein the third compact disc reader is an audio CD player, and the track (T1) is an audio track.
7. A compact disc according to any preceding claim, wherein the data portion (ED) includes unrecoverable data (UD) arranged to cause a read error in the first compact disc reader.
8. A compact disc according to any preceding claim, wherein the data portion (ED) includes a pointer (DP) to a player program executable by the first compact disc reader to play the track (T1).
9. A compact disc according to claim 8, wherein the pointer (DP) indicates a position (JF) on the compact disc at which the player program is stored.
10. A compact disc according to claim 8 or claim 9, wherein the data portion (ED) is arranged to cause the first compact disc reader to execute the player program.
11. A compact disc according to any one of claims 8 to 10, wherein the player program is arranged to restrict copying of the track (T1) by the first compact disc reader.
12. A compact disc according to any one of claims 1 to 7, including a boot sector (MB) arranged to cause a fourth compact disc player to execute a player program when the compact disc is loaded into the fourth compact disc player.
13. A compact disc according to claim 12, wherein the player program is arranged to restrict copying of the track (T1) by the fourth compact disc player.
14. A compact disc according to claim 12 or 13, wherein the player program is stored on the compact disc at a position (HFS) indicated by the boot sector (MB).

- 5 15. A compact disc according to any preceding claim, further including a supervisory program arranged to be executed by the first compact disc player when the compact disc is loaded therein, the supervisory program being arranged selectively to prevent access to the compact disc by the first compact disc player.
16. A compact disc according to any preceding claim, wherein the first compact disc reader is capable of copying the track (T1) to another carrier.
- 10 17. A compact disc according to any preceding claim, wherein the second compact disc reader is not capable of copying the track (T1) to another carrier.
18. A compact disc according to any preceding claim, wherein the second compact disc reader is not capable of loading and executing a program from any compact disc.
- 15 19. A method of manufacturing a compact disc, including formatting source data to create a session including a table of contents (TOC) and a program area containing at least one track (T1), the table of contents indicating a track start position (ATOC); characterised in that:
- 20 a. a data portion (ED) is located at said indicated track start position (ATOC) and is arranged to cause a first compact disc reader which uses the indicated track start position (ATOC) to determine the location of said track (T1) to fail to read the track (T1);
- 25 b. the track (T1) is located at an actual start position (AP) different from said indicated start position (ATOC); and
- c. the session further includes an index (VI) arranged to be used by a second compact disc reader to determine the actual start position (AP) and to enable the second compact disc player to read the track (T1).

20. A method according to claim 19, wherein the index is a video CD index (VI) and said second compact disc reader is a video CD compatible compact disc player.
- 5 21. A method according to claim 19 or claim 20, wherein the index is located at a predetermined position within the session, such that it is recognised by the second compact disc reader.
- 10 22. A method according to any one of claims 19 to 21, wherein the program area includes one or more subchannels (P; IDX) arranged to cause a third compact disc reader to play the track (T1) and to ignore the data portion (ED).
23. A method according to claim 22, wherein the one or more subchannels (P; IDX) are arranged to cause the third compact disc reader to ignore the index (VI).
- 15 24. A method according to claim 22 or claim 23, wherein the third compact disc reader is an audio CD player, and the track (T1) is an audio track.
25. A method according to any one of claims 19 to 24, wherein the data portion (ED) includes unrecoverable data (UD) arranged to cause a read error in the first compact disc reader.
- 20 26. A method according to any one of claims 19 to 25, wherein the data portion (ED) includes a pointer (DP) to a player program executable by the first compact disc reader to play the payload.
27. A method according to claim 26, further including recording the player program on the compact disc, wherein the pointer (DP) indicates a position (JF) on the compact disc at which the player program is recorded.
- 25 28. A method according to claim 26 or claim 27, wherein the data portion (ED) is arranged to cause the first compact disc reader to execute the player program.

29. A method according to any one of claims 26 to 28, wherein the player program is arranged to restrict copying of the track (T1) by the first compact disc reader.
- 5 30. A method according to any one of claims 19 to 25, including recording on the compact disc a boot sector (MB) arranged to cause a fourth compact disc player to execute a player program when the compact disc is loaded into the fourth compact disc player.
31. A method according to claim 30, wherein the player program is arranged to restrict copying of the track (T1) by the fourth compact disc player.
- 10 32. A compact disc according to claim 30 or 31, including recording the player program on the compact disc at a position (HFS) indicated by the boot sector (MB).
33. A method according to any one of claims 19 to 32, wherein the first compact disc reader is capable of copying the track (T1) to another carrier.
- 15 34. A method according to any one of claims 19 to 33, wherein the second compact disc reader is not capable of copying the track (T1) to another carrier.
35. A method according to any one of claims 19 to 34, wherein the second compact disc reader is not capable of loading and executing a program.
- 20 36. A method according to any one of claims 19 to 35, wherein the compact disc is a compact disc master (M).
37. A method according to claim 36, including manufacturing one or more playable compact discs directly or indirectly from the compact disc master.
- 25 38. A computer program including program steps for performing the method of any one of claims 19 to 36.

39. A compact disc carrying a session including a table of contents (TOC) and a program area (PA) containing at least one track (T1); characterised in that:

- 5 a. the session further includes an index (VI) arranged to be used by a first compact disc reader to determine the actual start position (AP) of the at least one track (T1) independently of the table of contents (TOC); and
- 10 b. the compact disc further carries a section (MB; ED) which causes a second compact disc reader to execute a player program when the compact disc is loaded in the second compact disc reader so as to enable the second compact disc reader to read the at least one track.

40. A method of manufacturing a compact disc, including formatting source data to create a session including a table of contents (TOC) and a program area (PA) containing at least one track (T1); characterised in that:

- 15 a. the session further includes an index (VI) arranged to be used by a first compact disc reader to determine the actual start position (AP) of the at least one track (T1) independently of the table of contents (TOC); and in that the method further comprises:
- 20 b. recording on the compact disc a section (MB; ED) which causes a second compact disc reader to execute a player program when the compact disc is loaded in the second compact disc reader so as to enable the second compact disc reader to read the at least one track.

25 41. A compact disc carrying a player program and a single session containing a table of contents and an index separate from the table of contents, the single session being readable by a first compact disc player only by executing the player program, and by a second compact disc player by reading the index.

42. A method of manufacturing a compact disc, including recording on the compact disc a single session containing a table of contents and an index

recorded separately from the table of contents, the single session being readable by a first compact disc player only by executing the player program, and by a second compact disc player by reading the index.

- 5 43. A method of restricting access to data on a removable storage medium in a removable storage device connected to a computer, comprising:
- a. intercepting a command sent by an application running on the computer for reception by the removable storage device,
 - b. determining whether the command is a standard command, which
10 can be interpreted by the device, or a non-standard command, which cannot be interpreted by the device;
 - c. if the command is a standard command, preventing the command from being executed correctly, and
 - d. if the command is a non-standard command, converting the
15 command to an equivalent standard command and sending the standard command to the device.
44. The method of claim 43, wherein step c includes blocking the transmission of the standard command to the device.
- 20 45. The method of claim 43, wherein step c includes sending the standard command to the device and modifying information received in reply from the device.
46. The method of any one of claims 43 to 45, wherein the command sent by the application is a standard read command.
47. The method of any one of claims 43 to 46, wherein the removable storage medium is a compact disc or digital versatile disc.
- 25 48. A computer program including program steps for performing the method of any one of claims 43 to 47.

49. The computer program of claim 48, recorded on the compact disc such that it is executed by the computer when the compact disc is mounted in the compact disc drive.

50. A compact disc carrying the computer program of claim 48 or 49.